

REMARKS/ARGUMENT

Claims 1, 12 and 23 have been amended to distinguish over prior art now claiming a hydrogen pressure of less than 1 atmosphere. Support for the hydrogen pressure limitation can be found explicitly in Table 2 (p. 10), wherein rates of hydrogenation of various polyphenyl ethers/catalyst mixtures are given for various temperatures at a total hydrogen pressure of 10 T (≈ 0.01 atm).

New Claim 34 has been added. Support for new Claim 34 can be found at p. 3, 17-19, p. 4, 3-6 and 18-21. No new matter has been added.

Rejection under 35 USC §103

Claims 1-33 are rejected under 35 USC §103(a) as being unpatentable over Shepodd (5,624,598) in view of Streitweiser, Jr. and Morikawa (6,018,048). Applicant traverses the rejection.

Claims 1 and 12 have been amended to claim a composition (Claim 1) and method (Claim 12) for absorbing hydrogen, wherein hydrogen pressure of less than about 1 atmosphere.

Insofar as claims 1-11, as Applicant has pointed out in an earlier paper, Morikawa explicitly states (col. 12, 26-32) that at hydrogenation pressure below about 1 atm. no sufficient (sic) hydrogenation rate could be obtained. Consequently, one of skill in the art selecting a hydrogen absorbing material for hydrogen at a pressure of 1 atm or less would have no motivation for selecting one from the "laundry list" of compounds, including "benzene and its derivatives", disclosed by Morikawa. Thus, there is no motivation for substituting the compositions disclosed by

Morikawa into Shepodd to produce a composition capable of removing hydrogen at pressures less than 1 atm.

Applicants urge that a prima facie case of obviousness has not been made and respectfully request reconsideration and withdrawal of the rejection of claims 1-11.

Claim 12 and claims 13-22, dependent therefrom, now claim a method for absorbing hydrogen, wherein the hydrogen pressure is less than about 1 atm. A method claim is patentable if an otherwise conventional process uses either a novel material or an old material whose use in the claimed process would have been unobvious. Such being the case, Applicants urge that claims 12-22 that a prima facie case of obviousness has not been made and request reconsideration and withdrawal of the rejection of claims 12-22.

Claim 23, and claims 24-33 dependent therefrom, claim a composition for absorbing hydrogen from hydrogen/oxygen mixtures. Morikawa explicitly teaches away from the use of noble metal Raney catalysts of his invention from contacting oxygen gas or oxygen-containing gas during use (col. 12, 10-19). Moreover, Morikawa explicitly teaches (col. 12, 41-45) that the hydrogen gas may contain inert gases but not oxygen. Consequently, one of skill in the art is lead by Morikawa to the conclusion that the combination of a noble metal catalyst and the compounds disclosed cannot be employed in an oxygen containing atmosphere and therefore, there is no motivation for using Morikawa in conjunction with Shepodd for removing hydrogen from hydrogen/oxygen mixtures.

Based on the argument above, Applicants urge that rejection of claims 23-33 is misapplied and request reconsideration and withdrawal.

CONCLUSION

Applicants respectfully request entry and allowance of new claim 34.

The rejection of claims 1-33 under 35 USC §103(a) having been overcome, Applicant respectfully requests reconsideration and withdrawal of the rejection, and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

Date: 12/03/2003



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Application Number: 10/091,044

For Applicant: Shepodd